Southern Nuclear

Michael J. Yox
Regulatory Affairs Director
Vogtle 3 & 4

7825 River Road
Waynesboro, GA 30830
706-848-6459 tel
410-474-8587 cell
myox@southernco.com

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Southern Nuclear Operating Company
Vogtle Electric Generating Plant Unit 3
ITAAC Closure Notification on Completion of 2.2.02.11a.i [Index Number 154]

Ladies and Gentlemen:

In accordance with 10 CFR 52.99(c)(1), the purpose of this letter is to notify the Nuclear Regulatory Commission (NRC) of the completion of Vogtle Electric Generating Plant (VEGP) Unit 3 Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC) Item 2.2.02.11a.i [Index Number 154] to demonstrate that the Passive Containment Cooling System (PCS) motor-operated valves identified in the Combined License (COL) Appendix C, Table 2.2.2-1 perform an active safety-related function to change position as indicated in the table.

The closure process for this ITAAC is based on the guidance described in NEI 08-01, "Industry Guideline for the ITAAC Closure Process under 10 CFR Part 52," which was endorsed by the NRC in Regulatory Guide 1.215.

This letter contains no new NRC regulatory commitments. Southern Nuclear Operating Company (SNC) requests NRC staff confirmation of this determination and publication of the required notice in the Federal Register per 10 CFR 52.99.

If there are any questions, please contact Kelli Roberts at 706-848-6991.

Respectfully submitted,

Michael J. Yox
Regulatory Affairs Director Vogtle 3 & 4

Enclosure: Vogtle Electric Generating Plant (VEGP) Unit 3
Completion of ITAAC 2.2.02.11a.i [Index Number 154]

MJY/JMF

To:
Southern Nuclear Operating Company/ Georgia Power Company
Mr. Peter P. Sena III
Mr. D. L. McKinney
Mr. H. Nieh

Mr. M. D. Meier
Mr. G. Chick
Mr. S. Stimac
Mr. P. Martino
Mr. M. J. Yox
Mr. A. S. Parton
Ms. K. A. Roberts
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Mr. K. J. Drudy
Mr. J. M. Fisher
Mr. R. L. Beilke
Mr. S. Leighty
Ms. A. C. Chamberlain
Mr. J. C. Haswell
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cc:
Nuclear Regulatory Commission
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Mr. M. King
Mr. G. Bowman
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Mr. C. P. Patel
Mr. G. J. Khouri
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Mr. R. B. Brinkman
Mr. E. Rasmussen

Municipal Electric Authority of Georgia
Mr. J. E. Fuller
Mr. S. M. Jackson

Dalton Utilities
Mr. T. Bundros

Westinghouse Electric Company, LLC
Dr. L. Oriani
Mr. D. C. Durham
Mr. M. M. Corletti
Mr. Z. S. Harper
Mr. J. L. Coward

Other
Mr. S. W. Kline, *Bechtel Power Corporation*
Ms. L. Matis, *Tetra Tech NUS, Inc.*
Dr. W. R. Jacobs, Jr., Ph.D., *GDS Associates, Inc.*
Mr. S. Roetger, *Georgia Public Service Commission*
Mr. R. L. Trokey, *Georgia Public Service Commission*
Mr. K. C. Greene, *Troutman Sanders*
Mr. S. Blanton, *Balch Bingham*

Southern Nuclear Operating Company
ND-21-0867
Enclosure

Vogtle Electric Generating Plant (VEGP) Unit 3
Completion of ITAAC 2.2.02.11a.i [Index Number 154]

ITAAC Statement

Design Commitment

11.a) The motor-operated valves identified in Table 2.2.2-1 perform an active safety-related function to change position as indicated in the table.

Inspections/Tests/Analyses

i) Tests or type tests of motor-operated valves will be performed to demonstrate the capability of the valve to operate under its design conditions.

ii) Inspection will be performed for the existence of a report verifying that the capability of the as-built motor-operated valves bound the tested conditions.

Acceptance Criteria

i) A test report exists and concludes that each motor-operated valve changes position as indicated in Table 2.2.2-1 under design conditions.

ii) A report exists and concludes that the capability of the as-built motor-operated valves bound the tested conditions.

ITAAC Determination Basis

Multiple Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC) were performed to demonstrate that the Passive Containment Cooling System (PCS) motor-operated valves identified in the Combined License (COL) Appendix C, Table 2.2.2-1 perform an active safety-related function to change position as indicated in the table.

i) A test report exists and concludes that each motor-operated valve changes position as indicated in Table 2.2.2-1 under design conditions.

This portion of the subject ITAAC required tests or type tests of motor-operated valves to be performed to demonstrate the capability of the valve to operate under its design conditions.

The motor-operated valves identified in COL Appendix C, Table 2.2.2-1 are qualified in accordance with the provisions of American Society of Mechanical Engineers (ASME) QME-1-2007, "Qualification of Active Mechanical Equipment Used in Nuclear Power Plants" (Reference 1).

Functional qualification is performed under the design conditions identified in the design specification for the valves (Reference 2) to demonstrate that each motor-operated valve is qualified to perform its designated function when used in its intended service. In accordance with ASME QME-1-2007, qualification is substantiated by demonstrating the relationship between the service requirements and the type testing and analysis that was conducted as part of this qualification program.

Type testing was performed, including natural frequency determination, side load static deflection testing, final static seat and stem leakage testing, steam testing, and water testing, for the ranges of the pressure, temperature and flow for each valve and the maximum seat-sealing differential pressure. In accordance with ASME QME-1-2007, the functional qualification process for these motor-operated valve assemblies also included valve and actuator internal inspections and measurement, orientation requirements, seat and stem leakage limitations, diagnostic data collection and analysis methods, static and dynamic flow diagnostic testing, and pressure locking and thermal binding evaluations. The qualification also followed the provisions of ASME QME-1-2007 for the extrapolation of functional qualification to another valve assembly, and demonstration of functional capability of production valve assemblies.

The results of the qualification are documented in the Equipment Qualification (EQ) Reports (Reference 3) which are identified in Attachment A for each applicable valve. These reports summarize the test methodology and ASME QME-1-2007 functional qualification that demonstrate that each motor-operated valve changes position as indicated in VEGP Unit 3 COL Appendix C Table 2.2.2-1 under design conditions.

ii) A report exists and concludes that the capability of the as-built motor-operated valves bound the tested conditions.

This portion of the subject ITAAC requires that an inspection is performed for the existence of a report verifying that the capability of the as-built motor-operated valves bound the tested conditions.

The motor-operated valves in VEGP Unit 3 COL Appendix C Table 2.2.2-1 were verified by tests in accordance with section i) above, to demonstrate the capability of the valves to operate under their design conditions. The EQ Reports in Attachment A identify the equipment mounting employed for the testing and the specific conditions tested.

In accordance with the EQ Walkdown ITAAC Guidelines (References 4 and 5), an inspection was conducted of the PCS to confirm the satisfactory installation of the motor-operated valves. The inspection includes verification of equipment make/model/serial number, verification of equipment mounting and location, and verification that the mechanical and electrical connections are bounded by the tested conditions.

The documentation of installed configuration of the motor-operated valves includes photographs and/or sketches of equipment mounting and connections. The verification of installed component configuration is documented in the As-Built EQ Reconciliation Report(s) (EQRR) (Reference 6).

Attachment A identifies the EQRR which verify that the installed configuration of the motor-operated valves identified in VEGP Unit 3 COL Appendix C Table 2.2.2-1 are bounded by the tests or type tests.

Together, these EQ Reports and EQRR (References 3 and 6), provide evidence that the ITAAC Acceptance Criteria requirements are met:

- A test report exists and concludes that each motor-operated valve changes position as indicated in Table 2.2.2-1 under design conditions; and

- A report exists and concludes that the capability of the as-built motor-operated valves bound the tested conditions.

References 3 and 6 are available for NRC inspection as part of the Unit 3 ITAAC 2.2.02.11a.i Completion Package (Reference 7).

ITAAC Finding Review

In accordance with plant procedures for ITAAC completion, Southern Nuclear Operating Company (SNC) performed a review of all ITAAC findings pertaining to the subject ITAAC and associated corrective actions. This finding review, which includes now-consolidated ITAAC Index 155, found the following relevant ITAAC findings associated with this ITAAC:

- Notice of Nonconformance 99900905/2012-201-01 (closed)

- Notice of Nonconformance 99900905/2012-201-04 (closed)

The corrective actions are completed. The ITAAC Finding Review is documented in the ITAAC Completion Package for ITAAC 2.2.02.11a.i (Reference 7) and is available for NRC review.

References (available for NRC inspection)

1. American Society of Mechanical Engineers (ASME) QME-1-2007, "Qualification of Active Mechanical Equipment Used in Nuclear Power Plants"
2. APP-PV01-Z0-001 Revision 10, "3" and Larger Motor Operated Gate and Globe Valves, ASME Boiler and Pressure Vessel Code Section III, Class 1, 2, and 3"
3. Equipment Qualification (EQ) Reports as identified in Attachment A
4. ND-RA-001-014, EQ ITAAC As-built Walkdown Guideline, Version 3.1
5. ND-RA-001-016, EQ ITAAC As-built Installation Documentation Guideline, Version 1.0
6. As-Built Equipment Qualification Reconciliation Reports (EQRR) as identified in Attachment A for Units 3
7. 2.2.02.11a.i-U3-CP-Rev0, "Completion Package for Unit 3 ITAAC 2.2.02.11a.i [Index Number 154]"
8. NEI 08-01, "Industry Guideline for the ITAAC Closure Process Under 10 CFR Part 52"

Attachment A

System: Passive Containment Cooling System (PCS)

Equipment Name [+]	Tag No. [+]	Active Function [+]	EQ Reports (Reference 3)	As-Built EQRR (Reference 6)[*]
PCCWST Isolation Valve MOV	PCS-PL-V001C	Transfer Open	SV3-PV01-VBR-011 / SV3-PV01-VBR-012	2.2.02.11a.i-U3-EQRR-PCD001
PCCWST Isolation Block MOV	PCS-PL-V002A	Transfer Open	SV3-PV01-VBR-011 / SV3-PV01-VBR-012	2.2.02.11a.i-U3-EQRR-PCD001
PCCWST Isolation Block MOV	PCS-PL-V002B	Transfer Open	SV3-PV01-VBR-011 / SV3-PV01-VBR-012	2.2.02.11a.i-U3-EQRR-PCD001
PCCWST Isolation Block MOV	PCS-PL-V002C	Transfer Open	SV3-PV01-VBR-011 / SV3-PV01-VBR-012	2.2.02.11a.i-U3-EQRR-PCD001

Notes:

[+] Excerpt from COL Appendix C Table 2.2.2-1